

App. No. 10/044,294  
Amendment Dated: December 12, 2005  
Reply to Office Action of September 26, 2005

### **REMARKS/ARGUMENTS**

Claims 1, 40-42 and 44-61 remain in this application for further review. Independent claims 1, 40-42, and 61 have been amended. No new matter has been added. Applicants believe the claims are allowable as more fully stated herein.

#### **I. Brief Summary of the Prosecution and Request for Interview**

On June 14, 2005, applicants' attorney held an interview with Examiner Nguyen. During that interview, applicants believed that an agreement was reached that the claims, as amended, overcame the cited references. On September 26, 2005, a non-final Office Action was mailed out rejecting the claims in view of new art. This Response is in view of the September 26, 2005 Office Action. Applicants believe that the claims as amended are allowable. Applicants respectfully request an interview with Examiner Nguyen if it is believed that the claims are still not allowable.

#### **II. Rejection of Claims 1 and 40-42 Under 35 U.S.C. 103(a)**

Claims 1 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,548,814 issued to Lorang et al. ("Lorang") in view of U.S. Patent No. 5,903,618 issued to Miyake et al. ("Miyake"). Applicants assert the references cannot be combined as propounded. Yet, applicants have amended the claims as set forth above to further clarify the claims and expedite allowance. Claim 1 includes the following *combination of elements* that are not taught or otherwise rendered obvious by the cited references:

*"a broadcast transmitter configured to transmit broadcast information by employing wide-area FM subcarrier broadcasting on a predetermined schedule,*

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*wherein the broadcast information includes information for being conveyed on a user interface of a mobile device"*

*"a localcast transmitter configured to transmit local information over a local area, wherein the local area is smaller than the wide area"*

*"a peer-to-peer transmitter configured to transmit peer information; and"*

*"a mobile device configured to:*

*receive the broadcast information when the mobile device is in a broadcast mode and convey the broadcast information to a user interface of the mobile device;*

*receive the localcast information when the mobile device is in a localcast mode and convey the localcast information to a user interface of the mobile device;*

*transmit localcast information when the device is in a localcast mode;*

*receive peer information when the device is in a peer-to-peer mode and convey the peer information to a user interface of the mobile device; and*

*transmit peer information when the device is in a peer-to-peer model"*

The combination of elements recited in claim 1 is not taught or otherwise suggested by the cited references. Specifically, applicants can find no teaching or suggestion in either of the references of the combination of a broadcast transmitter, a localcast transmitter, a peer-to-peer transmitter and a mobile device as claimed.

Moreover, Lorang only teaches receiving from a local transmission. The broadcast taught in Lorang is used for configuring the localcast transmission and not for the transmission of information for use on a user interface of the device. With reference to a localcast transmission, Lorang specifically teaches as follows:

"If a message were originated at the Source PC 48, the Source PC 48 would have associated therewith a lookup table similar to the ones in the LANs 38 in order to determine which of the LANs 38 was the "homebase" of the recipient PDU 10. Alternately, the source PC will contact one of the LANs 38 and obtain "homebase" information. The data or information to be forwarded to the PDU 10 would then be assembled with a header or routing information that defines the address or ID of the recipient PDU 10 and the method of delivery, i.e., whether

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the message is to be delivered immediately or at a later time, and possibly path over which the data or message is to be delivered. *This information is then transmitted to the homebase LAN 38 and stored in its database. The LAN 38 or the homebase LAN 38 then attempts to locate the PDU within its range by sending out a polling request to the recipient PDU 10 in the form of a Ready-to-Transmit message.* Of course, all of the PDUs 10 within the transmission range of the associated antenna 44 and Rx/Tx device 42 will receive the information. However, *only the one of the PDUs 10 recognizing the transmitted address as the associated unique address or ID will respond with an acknowledgement signal in the form of a Ready-to-Receive message. Once the LAN 38 has received the acknowledgement signal, the data is then transmitted thereto from the antenna 44 to the antenna 18."* Lorang, at col. 4, line 51 - col. 5, line 7 (emphasis added).

Succinctly stated, Lorang teaches that information for being conveyed on a user interface of a device is transmitted between antenna 44 and antenna 18 of the device. In doing this "local" transmission, a Ready-to-Transmit message is sent to local PDUs to determine whether the PDU of interest is in range. If the PDU of interest is in range, the PDU sends back an acknowledgement signal. The source PC receives the acknowledgment signal and sends the information to the PDU over the localized link. However, when the PDU is out of range, the PDU will not receive the Ready-to-Transmit signal and the source PC will not receive an acknowledgement signal. In such a situation, the source PC needs to get the Ready-to-Send message to the PDU in a different manner. Lorang specifically teaches as follows:

"If a LAN 38 does not receive an acknowledgement signal from the recipient PDU 10 in response to the poll *the LAN 38 will then assemble a message for transmission to the PSTN/PDN 34 and subsequently to the central station 32 for retransmission as a paging message over the paging satellite 26. This message contains the address of the recipient PDU 10 and, in addition, the location of the data and the proposed method of delivery.* The message will then be assembled and transmitted to the satellite 26 and then transmitted to each of the plurality of sticks 20 in the paging network. Each of the sticks 20 then formats and transmits this paging message out from the paging antenna 24 to all of the PDUs 10 within their transmission range at the specified time and frequency of the message passes Forward Error Control (FEC). Faulty data will not be

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transmitted, and if that base station has a return link to the central station, it can send back an ARQ. Then, the CO will repeat this process up to a defined number of retries. The PDU 10 will always receive the strongest signal, which is the reason that all of the sticks 20 must transmit at substantially the same time. *Once the recipient PDU 10 recognizes its unique address, it then generates an acknowledgement message for transmission to the closest Rx/Tx device 42 and associated LAN 38.* If this is not the homebase LAN, the receiving LAN 38 will then request the data from the homebase LAN 38, store the data in its data memory and then effect a data transfer to a recipient PDU 10." *Lorang*, at col. 5, lines 8-34.

Succinctly stated, Lorang teaches that a message containing an address and location of data is transmitted to the sticks. The PDUs then use this message to contact *the closest Rx/Tx device to retrieve the information*. Lorang does not teach "a broadcast transmitter configured to transmit broadcast information by employing wide-area FM subcarrier broadcasting on a predetermined schedule, wherein the broadcast information includes information for being conveyed on a user interface of a mobile device." Also, Lorang does not teach a mobile device configured to "receive the broadcast information when the mobile device is in a broadcast mode and convey the broadcast information to a user interface of the mobile device." Moreover, applicants can find no teaching whatsoever of the combination of a broadcast transmitter, a localcast transmitter, a peer-to-peer transmitter and a mobile device as claimed. Further, Lorang does not teach the combination of elements associated with a mobile device. Specifically, Lorang does not teach a mobile device that is configured to:

1. receive the broadcast information when the mobile device is in a broadcast mode and convey the broadcast information to a user interface of the mobile device;
2. receive the localcast information when the mobile device is in a localcast mode and convey the localcast information to a user interface of the mobile device;
3. transmit localcast information when the device is in a localcast mode;

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4. receive peer information when the device is in a peer-to-peer mode and convey the peer information to a user interface of the mobile device;
5. transmit peer information when the device is in a peer-to-peer model.

The aforementioned *combination of elements* is not taught or otherwise suggest by Lorang. Miyake does not remedy the lack of teaching or suggestion in Lorang. Miyake teaches a multimode radio communication system capable of communication through a base station and communication directly (terminal to terminal). Applicants can find no teaching of the combination of elements recited above. Accordingly, applicants assert that neither Lorang nor Miyake teach or otherwise suggest the combination of elements recited in claim 1, and therefore, claim 1 should be found allowable.

Regarding claim 40, claim 40 includes the following combination of elements that are not taught or otherwise rendered obvious by the cited references:

***"a broadcast transmitter configured to transmit broadcast information to a device over a subcarrier channel to a wide area according to a first transmission format, wherein the broadcast information includes information for being conveyed on a user interface of a mobile device"***

***"a localcast transmitter coupled to the data source and configured to transmit local information to a device over a local area according to a second transmission format"***

***"a mobile device configured to:***

- receive the broadcast information*** when the mobile device is in a broadcast mode and ***convey the broadcast information to a user interface of the mobile device;***
- receive the localcast information*** when the mobile device is in a localcast mode and ***convey the localcast information to a user interface of the mobile device;*** and
- transmit localcast information*** when the device is in a localcast mode"

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Regarding claim 41, claim 41 includes the following combination of elements that are not taught or otherwise rendered obvious by the cited references:

**"a mobile device configured to:**

***receive broadcast information from a broadcast transmitter*** when the mobile device is in a broadcast mode and ***convey the broadcast information to a user interface of the mobile device***, wherein the broadcast information is received over a subcarrier channel distributed to a ***wide area according to a first format***;  
***receive localcast information from a localcast transmitter*** when the mobile device is in a localcast mode and ***convey the localcast information to a user interface of the mobile device***, wherein the localcast information is received over a ***locally-unused FM frequency over a local area***; and  
***transmit localcast information*** when the device is in a localcast mode"

Regarding claim 42, claim 42 includes the following combination of elements that are not taught or otherwise rendered obvious by the cited references:

**"a mobile device configured to:**

***receive broadcast information from a broadcast transmitter*** when the mobile device is in a broadcast mode and ***convey the broadcast information to a user interface of the mobile device***, wherein the broadcast information is received over a subcarrier channel distributed to a wide area according to a first format;  
***receive localcast information from a localcast transmitter*** when the mobile device is in a localcast mode and ***convey the localcast information to a user interface of the mobile device***, wherein the localcast information is received over a locally-unused FM frequency over a local area;  
***receive peer information from a peer-to-peer transmitter*** when the device is in a peer-to-peer mode and ***convey the peer information to a user interface of the mobile device***, wherein the peer information is received from a peer device over a local area;  
***transmit localcast information*** when the device is in a localcast mode;  
and  
***transmit peer information*** when the device is in a peer-to-peer mode"

With regard to independent claims 40-42, those claims include some of the same elements recited above in claim 1. Applicants rely on the contentions set forth in support for

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claim 1 for support of claims 40-42. Accordingly, applicants believe that claims 1, 40-42 are allowable over the cited references.

### **III. Rejection of Claims 44-61 Under 35 U.S.C. 103(a)**

Claims 44-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorang in view of Miyake and further in view of U.S. Patent No 5,442,646 issued to Chadwick et. al ("Chadwick"). Applicants respectfully disagree with the rejection. There is no suggestion in either of the references that they may be modified in the manner suggested. Furthermore, even if for argument purposes such modifications were possible, the proposed combination would still fail to teach several of the limitations of the claims. Also, the 35 U.S.C. 103(a) rejection depends from the 35 U.S.C. 103(a) rejection above. Claims 1 and 40-42 are clearly allowable under 35 U.S.C. 103(a) as more fully set forth above. Accordingly, applicants believe that the 35 U.S.C. 103(a) rejection of claims 44-60 should be withdrawn for at least the same reasons set forth above.

With regard to independent claim 61, claim 61 includes the following combination of elements that are not taught or otherwise rendered obvious by the cited references:

*"a mobile device including an antenna assembly; a digital control and processing circuit; a microcomputer assembly; a random access memory; a nonvolatile memory; a microprocessor-controlled user interface; and a real-time component having a system timing function, a real-time event dispatching function, and a digital radio; and the mobile device being configured to"*

*"receive broadcast information from a broadcast transmitter when the mobile device is in a broadcast mode and convey the broadcast information to a user interface of the mobile device, wherein the broadcast information is received over a subcarrier channel distributed to a wide area according to a first format"*

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*"receive localcast information from a localcast transmitter when the mobile device is in a localcast mode and convey the localcast information to a user interface of the mobile device, wherein the localcast information is received over a local area"*

*"receive peer information from a peer-to-peer transmitter when the device is in a peer-to-peer mode and convey the peer information to a user interface of the mobile device, wherein the peer information is received from a peer device over a local area"*

*"transmit localcast information when the device is in a localcast mode"*

*"transmit peer information when the device is in a peer-to-peer mode"*

With regard to independent claim 61, claim 61 includes some of the same elements recited above in claims 1 and 40-42. Applicants rely on the contentions set forth in support for claims 1 and 40-42 for support of claim 61. Moreover, Chadwick does not remedy the lack of teachings in Lorang and Miyake. Chadwick merely pertains to a subcarrier communication system. Applicants can find no teaching of the combination of elements recited above. Accordingly, applicants believe that independent claim 61 is allowable over the cited references.

#### **IV. Request For Reconsideration**

In view of the foregoing, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicants at the telephone number provided below.



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Respectfully submitted,

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